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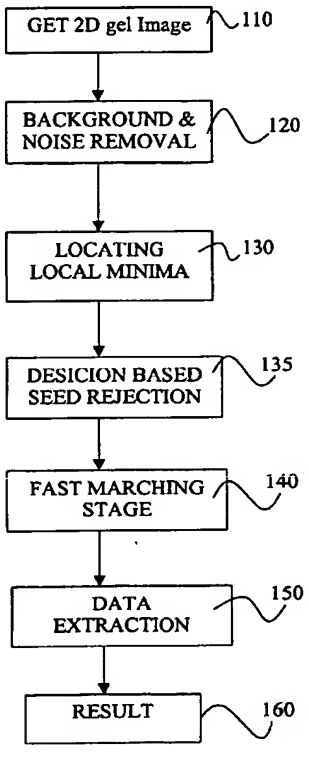
(54) Title: METHOD AND MEANS FOR 2D-GEL IMAGE SEGMENTATION



(57) Abstract: The present invention relates to the segmentation of two-dimensional gel electrophoresis images (2D images). The method according to the invention associates an initial protein seed candidate with an interface circumscribing said seed and thereafter brings said interface to evolve in accordance with a defined speed function F(x, y). The evolution of the interface is halted by a stopping criterion, C. According to the invention, the speed function can depend on a wide variety of parameters such as the pixel intensity, the curvature of the pixel intensity, the distance to the initial seed, the curvature and/or shape and/or normal direction and/or position of the evolving interface. The stopping criterion depends e.g. on the speed function F and/or the time of arrival T(x, y) and/or the departure time T_d for said interface. The invention provides criteria for a specific treatment of saturated spots and to make sure that interfaces never overlap.

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